

**REMARKS**

Reconsideration and allowance are requested. Claims 29, 30, 34, 35 and 39 - 44 are pending in the application. All pending claims are rejected.

**Rejection of Claim 29 under Section 102(e)**

The Examiner rejects claim 29 under Section 102(e) as being unpatentable over U.S. Patent No. 6,097,842 to Suzuki et al. ("Suzuki et al."). The Examiner asserts that column 30, lines 62 - 63 and Column 31, lines 42 - 46 disclose a scalability flag that equates to assigning a priority to the VOL. Applicants traverse this rejection and again traverse the incorporation of the N1277 reference to alter the meaning of the function and use of the scalability flat in Suzuki et al. Applicants will explain that the use of the term "scalability" in Suzuki et al. differs from the use of the term in the N1277 reference. As we will see, Suzuki et al. introduced a size/time scalability that specifically is meant to differentiate from the previously proposed scalability in N1277. The Examiner's reference to N1277 to define the meaning of scalability reverses the express definition by Suzuki et al.

In a previous Office Action, the Examiner originally rejected claim 29 arguing that the video\_object\_layer\_id as shown in FIG. 35 of Suzuki et al. disclosed assigning a priority to a VOL (See 11/25/2002 Office Action). Applicants responded and explained in the Response dated 3/23/2003 that the video\_object\_layer\_id, which is used as a parameter to identify the class for scalability of the VOL, does not operate to assign a priority to the VOL but is merely used to identify whether the VOL is a upper layer or a lower layer VOL. In Suzuki et al., as was explained by Applicants in the 3/23/2003 Response, that the upper and lower layers in Suzuki et al. relate to whether a large or a small picture is to be presented. Therefore, the upper and lower levels of Suzuki et al. do not provide a priority between the layers as much as the simply a differentiation between picture size.

The Examiner accepted this explanation as persuasive. Specifically, the Examiner in the Office Action dated 6/13/2003 accepted Applicants' argument stating that:

After careful evaluation, The Examiner concluded that the video\_object\_layer\_id is silent about the commonly known meaning of "priority" and cannot be read as a VOL priority as pointed out by Applicants.

However, the Examiner then applied the disclosure at column 31, lines 42 - 46 and column 30, lines 62 - 63 to reject claim 29 switching the argument from the video\_object\_layer\_id to the one-bit scalability flag disclosed by Suzuki et al. However, Applicants respectfully but strongly traverse the Examiner's approach in utilizing the N1277 disclosure to define the one-bit scalability flag in Suzuki et al. Suzuki et al. purposefully introduces a new concept of scalability that differs from the meaning in N1277. Suzuki et al. introduce a "size/time" scalability that they note is not taught in N1277. For this reason, Applicants submit that claim 29 is allowable over Suzuki et al. and further, Applicants again provide explanation why the Examiner cannot, without utilizing Section 103, incorporate the meaning of the term "scalability" from N1277 into the disclosure of Suzuki et al.

The Examiner noted in the outstanding Office Action that Suzuki et al. directly mentions N1277 at column 7, lines 1 - 5. Suzuki et al. does reference the standardization process underway at the time of the filing in ISO/IEC/JTC1/SC29/WG11. The Examiner cannot ignore, however, the context in which ISO/IEC/JTC1/SC29/WG11 was cited. The stated purpose of the invention in Suzuki et al. was to propose a new and different scalability for the MPEG-4 standard that was different from what was currently being considered as set forth in ISO/IEC/JTC1/SC29/WG11. Suzuki et al. state:

...an operation for standardizing a VO based encoding system is underway in ISO-IEC/JTC1/SC29/WG11 as MPEG 4. However, at present, a method for efficiently encoding a VO or encoding key signals has not yet been established and is in a pending state. In any event, although MPEG 4 prescribes the function of scalability, **there has not been proposed a specified technique for realization of scalability for a VO in which**

**the position and size thereof change with time.** As an example, if the VO is a person approaching from a distant place, the position and the size of the VO change with time. Therefore, if a picture of a lower layer is used as a reference picture in predictive encoding of the upper layer picture, it may be necessary to clarify the relative position between the picture of the upper layer and the lower layer picture used as a reference picture. On the other hand, in using VO-based scalability, the condition for a skip macro-block of the lower layer is not necessarily directly applicable to that for a skip macro-block of the lower layer. (emphasis added).

Applicants submit that the purpose of Suzuki et al. is clearly to set forth a scalability factor that relates to the size of the pictures in the upper layer (i.e., larger pictures), relative to the pictures in the lower layer (smaller pictures). This size/time scalability "has not yet been proposed" in the ISO-IEC/NTC1/SC29/WG11 document. In the Abstract, Suzuki et al. states that the invention is a method for obtaining scalability of a video object show position and/or size changes with time. The example they use is where a person walks from a far away position to a close position in a display, the size of the person increases as they approach the near view. Therefore, the size/time scalability of Suzuki et al. relates to object size and position, which is clearly meant to differ from the approach "not yet proposed" in ISO-IEC/NTC1/SC29/WG11.

Column 30, lines 42 - 46 and FIG. 35 make this clear. When the one-bit flag scalability (A3 in FIG. 35) simply specifies which of the lower and upper layers is the VOL. As shown in the code of FIG. 35, if the size/time scalability flag is set so that the remainder of the subroutine executes, the function of the subroutine relates exclusively to the size and position of objects in the upper and lower layers, and not a priority of the upper layer over the lower layer. For example, the functions shown as A5 are `hor_sampling_factor_n` and `hor_sampling_factor_m`. These are parameters that specify a value corresponding to a horizontal length of the VOP in the lower layer and a value corresponding to the horizontal length of the VOP in the upper layer. Further, the parameters shown as A6 are values that relate to the vertical length of the VOP in the lower layer and a value corresponding to the vertical length of the VOP in the upper layer. See Col. 31, lines 47 - 68. (Note

that in N1277, page 55, the definitions of hor\_sampling\_factor\_n/hor\_sampling\_factor\_m and vert\_sampling\_factor\_n/vert\_sampling\_factor\_m differ from the definition of these parameters in Suzuki et al.)

The details disclosed by Suzuki et al. make clear that when they speak in terms of “scalability”, that their purpose is to explain their proposed modification of N1277 to include scalability of a VO as it changes size with time. The Examiner cites MPEP 2131.01 to support the inclusion of disclosure from N1277. That portion of the MPEP 2131.01 states that it is appropriate to use a second reference to explain the meaning of a term in the primary reference. Later in part II of MPEP 2131.01, it makes clear that extrinsic evidence may be used to explain but not expand the meaning of terms and phrases. In the present case, Suzuki et al. mention N1277 and then state that they have an approach to scalability that relates to the size in time of video objects that “has not yet been proposed” in N1277. Then Suzuki et al. set forth in a lengthy disclosure their size/time scalability approach. Column 31 of Suzuki et al. discloses the one-bit scalability flag as triggering a subroutine that identifies and scales objects in lower layer relative to the upper layer.

Rather than rely on the meaning of the size/time scalability as taught by Suzuki et al., the Examiner incorporates the definition of “scalability” to that taught by N1277. The Examiner relies on the lower layer having priority because the data of an enhancement layer cannot be used to generate any meaningful image. This disclosure is purely obtained from N1277 and finds no support in Suzuki et al., where the size/time scalability flag has no relation to the base layer and enhancement layer resolution. Again, Suzuki et al., when referencing N1277, purposefully distance their approach to the scalability as proposed in N1277. Therefore, by incorporating the meaning of scalability from N1277, the Examiner has changed the meaning of the term in direct conflict with the disclosure of Suzuki et al. and the articulated purpose to propose a size/time scalability approach that differs from that of N1277. A search of Suzuki et al. reveals that they do not teach the same

scalability approach as N1277. Thus, the Examiner has inappropriately expanded upon the meaning of the term in Suzuki et al. to reject the claims.

Applicants respectfully submit that the size/time one-bit scalability flag taught by Suzuki et al. relates to whether the VOL is in an upper or a lower layer. The size/time scalability in Suzuki et al. relates to scaling objects that change in size relative to time in the upper and lower layers. In this regard, the upper and lower layer object information is not prioritized since there is no priority assigned to a larger or a smaller object. The objects are simply processed differently. Applicants urge the Examiner to review earlier arguments in the 3/23/2003 response in this regard.

Based on the foregoing, Applicants submit that claim 29 is patentable over Suzuki et al. and that this claim is in condition for allowance.

#### **Rejection of Claims 29 - 30 Under Section 103**

The Examiner rejects claims 29 - 30 under section 103 in view of Suzuki et al. and N1993. Applicants traverse this rejection and submit that for the reasons set forth above, the rejection of claim 29 in view of Suzuki et al. and N1277 should be withdrawn. Claim 30 depends from claim 29 and recites further limitations therefrom. Accordingly, since claim 29 is patentable, Applicants submit that claim 30 is patentable as well. Furthermore, claim 30 recites that the identifier is the "video\_object\_layer\_identifier" flag. The Examiner in the outstanding office action stated that the: "video\_object\_layer\_id is silent about the commonly known meaning of "priority" and cannot be read as a VOL priority as pointed out by Applicants." Therefore, Applicants submit that the Examiner has already accepted and established that the video\_object\_layer\_id is silent regarding priority. Therefore, for this additional reason, Applicants submit that claim 30 is patentable.

**Rejection of Claims 34, 39 - 41 and 43 - 44 Under Section 103**

The Examiner rejected claims 34, 39 - 41 and 43 - 44 under Section 103 in view of Suzuki et al. and U.S. Patent No. 6,025,877 to Chang et al. ("Chang et al."). These claims include the limitation discussed above regarding assigning priorities to the VOLs. As above with claim 29, the Examiner inappropriately incorporates a different definition for scalability from N1277. Therefore, Applicants incorporate the arguments set forth above and submit that the primary reference of Suzuki et al. does not disclose or suggest assigning a priority to VOLs. Therefore, the combination of Suzuki et al. and Chang et al. fail to teach each limitation of these claims. Applicants respectfully submit that claims 34, 39 - 41 and 43 - 44 are patentable over the prior art of record.

**Rejection of Claims 34 - 35 and 39 - 44 Under Section 103**

The Examiner rejected claims 34 - 35 and 39 - 44 under Section 103 as being unpatentable over Suzuki et al. in view of ISO/IEC N1993 and Chang et al. Applicants traverse this rejection.

Claim 34 includes the step of assigning a priority to each VOL. As set forth above, Suzuki et al. only discloses a size/time scalability which does not assign a priority to the VOLs. Applicants note that the Examiner did not address this limitation of claim 34 in the Office Action.

Further, Applicants traverse the combination of Suzuki et al. with ISO/IEC N1993 because there is no motivation or suggestion to combine these references. To establish a *prima facie* case of obviousness, the Examiner must meet three criteria. First, there must be some motivation or suggestion, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to combine the references. Second, there must be a reasonable expectation of success, and finally, the prior art references must teach or suggest all the claim limitations. The Examiner bears the initial burden of providing some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious

subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." MPEP 2142.

If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purposes, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Further, if the proposed modification of the prior art would change the principle operation of the prior art invention being modified, then the teaching of the reference is not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). The principles outlined in both these cases are applicable here.

Suzuki et al. and ISO/IEC N1993 actually teach away from their combination. The reason for this lies in the differing approaches as to the term scalability. As explained above, Suzuki et al.'s entire purpose is to introduce a new and different size/time scalability that was not proposed in the MPEG-4 standard as set forth in N1277. The N1277 reference defines an object-based temporal scalability and spatial scalability with the base layer and enhancement layer. (A hybrid scalability is also discussed) These different layers relate to temporal and spatial resolution rather than the size versus time scalability proposed by Suzuki et al. Further, as noted above, Suzuki et al. desired to propose this the new size/time scalability for the standard.

In the ISO/IEC N1993 document (dated in 1998), the scalability portion set forth in section 1.5.2 mirrors the scalability defined in N1277. The size/time scalability of Suzuki et al. was not incorporated into the ISO/IEC N1993 document. Therefore, one of skill in the art would recognize that Suzuki et al. distanced themselves from the N1277 definition of scalability, and thus also distanced themselves from the corresponding ISO/IEC N1993 definition of scalability. There would clearly be no motivation to combine Suzuki et al. with ISO/IEC N1993.


In addition, blending ISO/IEC N1993 with Suzuki et al. would require such a fundamental alteration of the basic principle operation of size/time scalability as taught by Suzuki et al. that no such motivation to combine could exist. In other words, incorporating Suzuki et al.'s scalability into ISO/IEC N1993 would require ignoring their express purpose is introducing the new size/time scalability which differed from and was not proposed in N1277 and ISO/IEC N1993. This would be in direct conflict with the purpose of Suzuki et al. Such a blending would require modifying the size/time scalability to be unworkable for its intended purpose and change the principle operation of the proposed Suzuki et al. version of scalability. Therefore, there is no motivation to combine Suzuki et al. with ISO/IEC N1993. Applicants respectfully submit that claims 34 - 35 and 39 - 44 are patentable and in condition for allowance.

### CONCLUSION

Having addressed the rejection of each pending claim, Applicants respectfully submit that the subject application is in condition for allowance. A Notice to that effect is earnestly solicited.

Respectfully submitted,

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